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FLUKE®

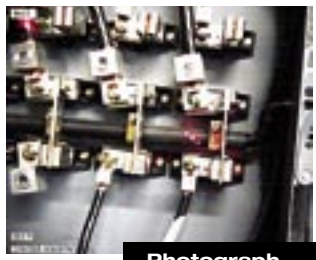
The Fluke 576 Photographic Non-contact Thermometer

Infrared temperature measurement with digital photos

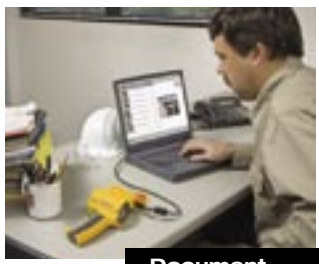
Technical Data

Introducing the world's first precision infrared (IR) thermometer with integral digital photography. For the most complete temperature documentation solution, predictive maintenance professionals use the Fluke 576 precision IR thermometer.

Measure



Photograph



Document

Any infrared thermometer can measure temperature, but only the Fluke 576 thermometer measures temperature while digitally photographing the measured area and its surroundings.

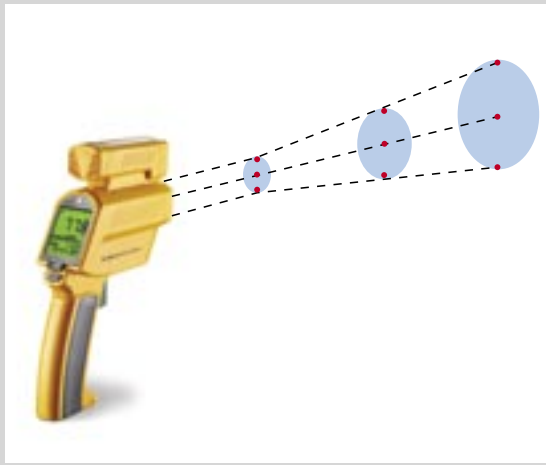
The proof is in the picture! Temperature measurement locations are instantly captured in a digital photo with a time and date stamp in the image. The laser sighting pinpoints the exact measurement location, without the need for a view finder.

Make sure the inspection was done properly. Download images and data to the PC software and double-check all work.

Ensure consistency of repeated measurements by using prior photos as a reference—position the laser sighting as shown in the photo to assure the measurement area is the same.

Create customized company reports with the software, data and photos. Just insert information from Fluke 576 data files into reports for fast, professional results.

Advanced Sighting



Accurate measurements depend in part on accurately sighting a target. Fluke 570 series thermometers are the only thermometers with a sighting system designed to precisely track the infrared path as seen by the sensors. This enables the advanced coaxial three-dot laser sighting to accurately show both the center and the edges of the spot being measured, regardless of the thermometer's distance from the target.

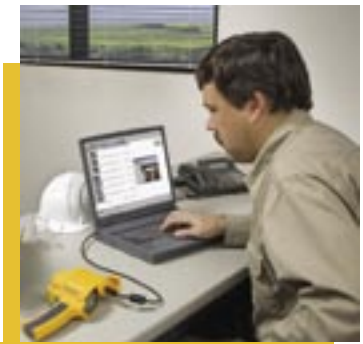
This laser sighting also appears twice as bright to the human eye as normal lasers (while maintaining the same safety rating as less bright lasers), making precise sighting easier in a variety of lighting conditions and distances.

Measurements and documentation as simple as 1-2-3

Focus the camera for near or distant photos using the focus ring. With the Fluke 576 thermometer in "log mode," pull and release the trigger. After taking a successful measurement and a photograph, the Fluke 576 thermometer prepares to record the temperature and image of the next location. In low light situations, the Fluke 576 thermometer can automatically illuminate the subject with a built-in flash.

1 Log temperature and take photo with the Fluke 576.

2 Download data from the Fluke 576 to a computer.



3 View, graph and generate reports with the software.

Advanced display

- Icons for camera active, flash active, and flash charging, and indication of photos remaining
- Confirmation of a successful photo taken
- 30 preset common material emissivities
- Adjustable emissivity values (0.01 increments)
- 100 location logging capability
- Customized log location names and alarms

Close Focus Option

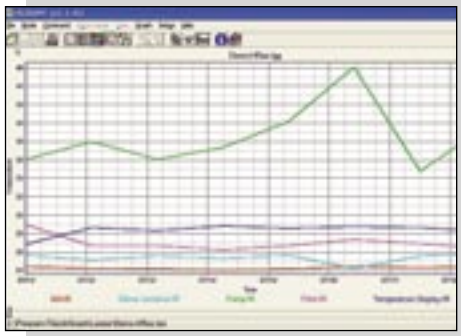
The Close Focus (CF) option lets you accurately measure very small areas at the focus point – where the IR beam narrows. Paired with an advanced coaxial laser sighting system, extremely small objects 6 mm (0.24 in) at 300 mm (11.4 in) can be easily measured. Ideal for electrical maintenance and refrigeration troubleshooting.

Software for condition monitoring and process control

Visualize and systematically maintain and analyze temperature data using Windows compatible software. Export data and images in common file formats for easy compatibility with standard programs.

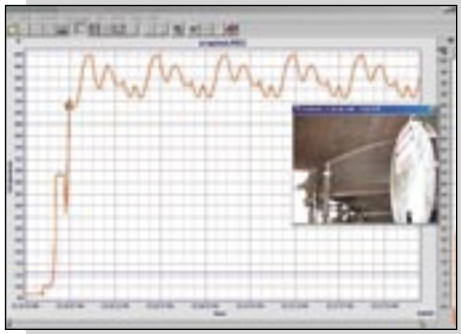
Data log tabular view

- See photos next to temperature data
- Create identifiable location names
- Tailor high/low alarms to location
- View minimum, maximum and average temperatures



Graph

- Visually review data and spot trends
- Quickly compare temperatures of up to 5 locations
- Display infrared temperatures over time
- Store up to 10,000 data points in a file



Live temperature reporting

- Record photos while in continuous measuring mode
- Set the Fluke 576 IR thermometer to take photos when high/low alarms exceeded
- Easily view photos through indications on temperature graph
- Simultaneously see temperature trend and photo

Report creation

- Import and paste temperature data and photographs to quickly create multiple reports
- Add impact to reports with recorded photos

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Specifications

Thermometer	
Temperature range	–30 °C to 900 °C (–25 °F to 1600 °F)
Accuracy	±0.75 % of reading or ±0.75 °C (±1.5 °F) whichever is greater (assumes ambient operating temperature of 23 °C (73 °F))
Repeatability	≤ ±0.5 % of reading or ≤ ±1 °C (±2 °F), whichever is greater
Response time	250 mSec (95 % of reading)
Spectral response	8 µm to 14 µm, thermopile detector
Distance to Spot (D:S)	60:1 (50:1 with Close Focus Option)
Minimum measurement diameter	19 mm (0.76 in) [6mm (0.24 in) with Close Focus Option]
Display resolution	0.1 °C of reading up to 900 °C (0.2 °F up to 999.8 °F)
Temperature display	°C or °F selectable
Ambient operating temperature	0 °C to 50 °C (32 °F to 122 °F)
Relative humidity	10 % to 90 % RH non-condensing at up to 30 °C (86 °F)
Storage temperature	–20 °C to 50 °C (–25 °F to 122 °F)
Tripod mount	1/4–20 UNC
Power	2 AA batteries
Battery life	8 hours (13 hours with photographic mode off) 50 photos, with flash (200 photos, without flash)
Laser Class II	3-dot laser sighting (meets IEC Class 2 and FDA Class II requirements)
Maximum and minimum temperature displayed	•
Differential and average temperature	•
Audible/visible high and low alarm	•
Bar graph display	•
Adjustable emissivity (from 0.1 to 1.0 by 0.01)	•
100 points data logging	•
Display hold	•
LCD backlit	•
PC Software operating systems	Windows 2000 and XP
Data graphing and photo viewing software (Windows® compatible)	•
Data output: USB or 1 mV per degree (°C or °F)	•
Weight	580 g (1 lb 4 oz)
Camera	
Maximum number of 640 x 480 pixel photos (VGA)	26
Maximum number of 320 x 240 pixel photos (1/4 VGA)	100
Recharge time for flash	5 sec
Camera lens	6 mm (0.24 in) approximately equal to 42 mm lens on a 35 mm camera
Close-up distance focal point	200 mm (7.87 in)
Far distance focal point	Infinity
Light sensitivity	6 lux w/out flash
Variable shutter speed	< 1/15 sec (with flash at 1/15 sec fixed)
Data interface	USB 1.1
Image file format	.jpg files
Warranty 2 years, conditional*	•

* Warranty duration may vary by country.

Ordering Information

Options

- Close focus
- NIST calibration certificate

Accessories

- Analog cable

Included with Fluke 576 unit:

- User's guide (on CD)
- Hardshell carrying case
- PC software
- USB computer cable
- Thermocouple K probe
- Padded pouch with belt clip

Analog cable accessory

Fluke. *Keeping your world up and running.*

Back to the Fluke 576 Product Info Page

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